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Forestry Project

UNITED ACTION GETS RESULTS

"All together -- push! And we'll win!" Such is the slogan of a cosmopolitan group of county agents, health nurses, teachers, employment experts, farm financiers, foresters and soil conservationists which meets on the last Monday of each month at a cafe at Vernon, Texas. They are interested in the welfare of the farmers of Wilbarger County and the monthly meeting is to coordinate and pool the efforts of all in an intelligently directed campaign for the betterment of farms and farming practices and a better life for the farmers.

Here is how the group works:

During the last planting season, three owners north of Vernon applied for two miles of shelterbelts on one section of land. Examiners found not only that the land was easily blown but it showed the effects of washing, obviously a place where trees could not be planted unless there was protection from water erosion. The landowners, county agent and representatives of the Soil Conservation Service and the Forest Service met in conference, when the landowners heard the examination report. The SCS official explained the necessary measures, which included terracing and contour farming the whole section, and the county agent worked out means to secure a survey and the necessary equipment.

Here are the results: (1) Two miles of shelterbelts with a much better chance for growth and becoming valuable; (2) complete water conservation measures on the section; (3) three landowners well pleased with their improvements and eager for additional improvements such as the home demonstration agent or county nurse might recommend.

It indeed warmed one's heart to hear a farmer say: "Seems like you fellows are as much interested as I am in improving my farm."

- T. C. Croker, Tex.

WE BELIEVE HE'S THE PROJECT'S CHAMPION

If V. J. Ritter of Sterling swaggers a bit as he walks down the street, just remember his pride is justifiable. He's tree planting champion of Kansas, and he won his title in as exciting and grueling a contest as any marathon ever recorded. His record is 1,790 trees in a single 7½-hour day during the last three hours of which a severe dust storm raged.

Ritter, during the planting season, had been planting 1,000 or more trees daily as a matter of course, when one day Howard Shehi, foreman, mentioned to Donald Nichols that Ritter had set out 1,100 trees. Next day, Nichols quietly set a record of 1,575 trees. Championship aspirations arose, and soon six men asked Ted Stebbins, squad foreman, to set a date for a formal title contest. April 24 was chosen.

All day long the men moved up and down the belts, maintaining a killing pace, never letting rivals get beyond striking distance. Stebbins and I arrived a half-hour before the contest was to end. The men were straining ahead so rapidly that the motor of the supply truck was not shut off during the last two hours so that it might keep up with the planters. Two tree tenders were needed to keep the planting baskets filled. Then Shehi announced that only 15 minutes remained, and the finish spurt was released, the planters stumbling forward from tree to tree, gasping for breath, perspiration streaming down their faces. Time was called and several men sat down immediately while others gamboled on wobbly legs to show that they could still "take it."

The final check-up showed that Ritter had regained the title by setting 1,790 trees; Roy Manwarren was second with 1,766; Vernon Nichols third with 1,650, and all of the others above the 1,500 mark. Ritter's planting during the last five minutes of the contest was 29 trees, actual count--a rate of a tree every 10 seconds.

This record is expected to stand for some time. It is quite remarkable, considering the dust storm which howled throughout the last three hours and the necessity of moving the crew three times during the day -- one move of 15 miles, one of 12 miles and one of 6 miles. The men began planting at 8:30 A.M. and quit at 4:30 P.M., having had a half-hour out for lunch.

Before the start of the contest, Shehi had warned the men that if they sacrificed quality for speed he would terminate the contest immediately. Stebbins and I checked their work and found it to be excellent tree planting.

- Karl F. Ziegler, Kans.

MISS MARCH-MOUNT MUCH APPRECIATED

Miss Margaret March-Mount, junior information specialist of Region 9, has addressed district conventions of the Nebraska Federation of Women's Clubs at South Sioux City, Hastings and Valentine this spring, and now says that she "heard" millions of trees sprouting and growing all over the State. She addressed the Federation's State convention in 1938, and since then the Regional Offices of this Project and Regions 2 and 9 have been flooded with requests for her appearance at the district conventions.

- E. Garth Champagne, Nebr.

EVAPORATION IS BIG FACTOR IN LOSS OF SOIL MOISTURE

Evidence continues to accumulate that we are on the right track in advocating windbreaks to increase crop production. Two research men of the University of Nebraska, F. L. Duley and J. C. Russel, according to newspaper reports, have discovered through experimentation that it is not enough to get the water to go into the soil; you must also keep it from going back out again through evaporation.

Seven plots of land were prepared according to different methods and studied from April 23 to September 8, 1938. During the period there was a total of 17.9 inches of precipitation. All of the plots were clean cultivated throughout the period in order to avoid loss through transpiration, and the idea was to find out what percentage of the water remained in the soil at the end of the studies.

Plot No. 1 was covered with straw and then disked, leaving it in much the same condition as ordinary disked stubble. Of the 17.9 inches of rain that fell, 6.9 or 38.7% was in the soil at the end of the test.

Plot No. 2 was barren ground, disked up. Only 3.5 inches of the rain, or 19.5% remained at the end of the period.

In Plot No. 3 the ground was neither disked nor plowed. It was covered with straw and then cultivated with a new wide-type duckfoot machine just often enough to kill the weeds and yet leave all of the straw on the surface. At the end of the period 9.7 inches or 54.3% of the moisture remained in the ground.

In Plot No. 4 the ground was covered with straw and the straw plowed under. Like Plot No. 1, it was in similar condition to ground summer-fallowed by ordinary methods, except that it was plowed instead of disked. The moisture storage was similar to Plot 1, 6.1 inches or 34.2% remaining.

In Plot No. 5 the ground was plowed but had no straw. It compares in preparation with Plot No. 2 except that it was plowed instead of disked and would compare, for example, to plowed ground on which the stubble had been burned. The moisture storage was only 3.7 inches, or 20.7%.

Plot No. 6 was prepared especially to test the theory that decayed plant matter in the soil increases its water-holding capacity. On this ground partly decayed straw was plowed under, care being taken that little of it remained on the surface. The decayed straw did little for the ground, however, only 3.1 inches or 17.4% of the moisture being retained. The retention was lower than that of any of the other plots.

Plot No. 7 provided the really startling information, however. This ground was barren, but it was basin-listed so that none of the water ran off. Nevertheless, at the end of the period only 4.9 inches or 27.4% remained. It was lower than on either of the Plots 1, 3, or 4, where some protection from evaporation was afforded the surface.

Unfortunately, there was no equipment available to measure the run-off from the first six plots, so it is not known whether all of the water which

fell on the straw-mulched plot was absorbed or not. Even if it all went in, the straw-mulched plot shows a gain of 100% over the basin-listed land where it is known that all of the water was held on the ground. Since there was no other possible source of loss, the basin-listed land lost more than 70% of the moisture which fell on it solely through evaporation from the surface.

The point of this somewhat extended discourse is that if soils lose so heavily of their moisture purely through evaporation, and evaporation varies in accordance with wind movement as we know it does, then our shelter-belts may be a more potent force in moisture conservation than we have realized. We have sort of shied away from too much emphasis upon this phase of wind protection because we have not had much data regarding its extent, but it looks as if it might be a profitable field for further inquiry. I am thinking particularly of the winter wheat belt where the land lies barren and exposed from the early summer harvest on, though all land devoted to annual crops spends some part of the season of high evaporation unprotected as to its surface.

- E. L. Perry, R.O.

INTERESTING INFORMATION GATHERED FROM FARMERS

One Oklahoma farmer is confident that chickens will keep a black locust grove free from borers. He told me that his three-acre woodlot furnishes all the fence posts he needs. He planted the trees close to his farmstead so the chickens could keep the borers and bugs under control, and so far the trees have been free of infestation. On the other hand, there is another locust grove a short distance away, he said, where the trees are riddled by borers by the time they are big enough for cutting and the wood is almost useless.

This farmer planted his grove in 1916 and has clear-cut it three times. He said that first he started to cut a tree here and there, but found the growth of new shoots retarded because of the presence of older trees. Now he cuts all trees in a single operation, and reproduction is of uniform size. Replanting is no problem to him, for whenever he wants more trees he only has to plow around the grove and soon some fine new trees are started.

Another farmer is the son of the first settler in Beaver County, Oklahoma, who went there as a cowhand in 1877, later marrying and settling just north of the Cimarron River. Then, he says, the sand and dry creeks were covered with native timber but settlers and nesters coming later removed the native timber so that at present only a few draws support trees. One result of the widespread removal of trees, he said, was the flood of 1914, when the Cimarron did untold damage to farm lands, and each year now the river destroys land and crops to an alarming extent.

- E. C. Wilbur, Okla.

"IN CASE YOU SEE ONE"

Coming home about sundown I saw a cock pheasant proudly surveying his flock in a field of alfalfa, said flock consisting of five hens and a rabbit. We're hoping the rabbit was a casual intruder and not really a member of the harem, because rabbits are hard enough to hit without developing a hybrid that can fly.

- Brennan B. Davis, Nebr.

SECRETARY LAUDS PROJECT

Secretary of Agriculture Wallace gave the Prairie States Forestry Project a lusty slap on the back in his Arbor Day address over the Farm and Home radio program, April 21, taking the spot usually occupied by Ranger Jim and his exploits.

The first part of his talk reminds listeners of the dependence of farmers and industry, rural and urban populations, on the timbered watersheds, and he sees in the tree planting by individuals an expression of their belief in the need to restore and protect the resources of soil and water, and forests. Regarding the PSFP, he said:

"Despite early skepticism similar to that which Morton faced, this project now includes more than 126,000,000 trees so planted that they form 11,000 miles of living shelterbelts, 100 feet wide, on 20,000 farms.

"Conceived by President Roosevelt in 1933, this project lies in a region in which there are more than 200,000 farm families. Within the last five years these families, and their farm land with its improvements is worth more than 3 billions of dollars, have been subject to the worst droughts in the history of the Prairie-Plains States. Their crops have also been exposed to severe grasshopper damage, and to high winds.

"Despite these conditions, this Prairie States Forestry Project has been carried on without interruption by farmers, in cooperation with this Department's Forest Service. In the five years since the first planting, many trees have grown four feet or more each year, and foresters tell me some of them have grown to a height of 35 feet. During years of unfavorable crop production those living barriers to scorching winds have reduced moisture losses at critical times, and protected cultivated crops. Throughout each year they have made the Plains regions where they are growing more attractive and a better place in which to live.

"I have mentioned the Prairie States Forestry Project in this radio visit with members of the Farm and Home Hour audience for certain very definite reasons. One is that the first step in the project is tree planting, and tomorrow is the 107th anniversary of the birth of the man who conceived Arbor Day. Another is that the growth of the Arbor Day idea and of this forestry project seem to me to give evidence of the national determination that we will replenish and build up our natural resources rather than deplete and destroy them."

THOSE "PLAINS" AGAIN

"A combined museum, steel airplane beacon, and observation platform, from which visitors will be able to view 35 of California's 58 counties, is being constructed by Civilian Conservation Corps veteran enrollees on the 3,850 foot summit of Mount Diablo in Mount Diablo State Park," says a CCC news release.

Shucks! You can see farther than that anywhere in Nebraska by the simple expedient of rising up on your tiptoes.

- E. L. Perry, R.O.

EDUCATION MEANS "HEAD WORK!"

It seems to be pretty well accepted that negotiations are largely salesmanship; that before a farmer is really a cooperator he must be in complete sympathy with and understand the goal of the work in which he has been enlisted. I feel, too, that most real cooperators must be developed by the field contact men. Farmers can not but see in time the value of the program to their community, but if we depended on their initiative to create a demand we would get along too slowly. The project must be thoroughly "sold" to them in a relatively short time for, after all, its effectiveness depends on concentrating the belts to complete as nearly as possible a desirable pattern over the community.

The educational measures should precede negotiations, for every farmer in the area ought at least to know of the shelterbelt program. This job is akin to advertising a commercial project to create a demand, after which the salesmen (or contact men) encounter little difficulty selling to distributors, who are often shrewd and selective buyers. The educational material must be prepared carefully, conveying the message without leaving the project or its personnel open to adverse comment -- it should make friends. Truth and sincerity should be the keynote.

The use of many of the educational ideas developed in the field, unfortunately, has been limited to the locality where they were devised, but PLAINS FORESTER is a good medium for passing ideas along to the rest of the shelterbelt personnel.

Posters have been used extensively in the Cheyenne subdistrict, Oklahoma, while we have found that advertising slides in motion picture theaters can always reach quite a number of possible cooperators as well as urge cultivation of shelterbelts during the summer.

Radio can be the most effective medium, reaching a larger group at one time than by any other means if interesting programs are put on regularly so they will become well known. Weekly radio programs are put on at Elk City, and we try to keep them light and natural as possible with music and humor in generous quantities. Each program has a theme, explaining the project as a negotiator would to a farmer, stressing cultivation or rodent control or whatever is timely. Frequently a farmer carries on the dialogue with a forester.

The theme need not necessarily be limited to shelterbelt topics. Recently the County Agent of Roger Mills County discussed with a farmer the AAA as it affected shelterbelt cultivation, the dialogue having been prepared by us. Later in the same program, there was a round-table discussion of the grasshopper problem on which the County Agent was working. This had not been prepared in advance, but it worked out well.

Advance planning, of course, is necessary. During the winter we put on a series of six programs stressing the need for shelterbelts and how farmers could get them, and now we bear on cultivation and rodent control.

Radio can be used more subtly to gain support. Everyone enjoys talking over radio, since it gives a sense of importance temporarily, and by inviting local key men to participate in our programs--which are really fun

to put on--we make closer friends of them. The presence of local men also adds interest to the program.

We believe the program helps, and we'll continue it until we are convinced that it does not help put the Project over more thoroughly.

- Fred R. Yaruss, Okla.

(Space limitations prohibit reproducing the posters mentioned, but they are well done. They are 18x24" in size, with an eye-catching arrangement of lettering. For example, one has, in bold lettering across the top, the letters "S O S," beneath which is the explanation "Save Our Soil." Follows then the shelterbelt message.

Fred gave his idea of using slides in movie theaters bare mention in his article, but actually it is quite a stunt. I did not suppose that in these sophisticated days movie projectors were even equipped to use slides, but presumably they are, and what is still more interesting is the fact that theater managers are glad to run them. It seems that slide making has become more or less a lost art since those halcyon days when it was the fate of every program to be interrupted for the purpose of flashing on the screen the scrawled request, "Will Ladies Please Remove Their Hats?" and Fred had some difficulty finding a material with both transparency and affinity for ink. He finally found it, however, in a certain kind of cellophane which, when duly inscribed, was bound between ordinary slide covers in the usual way. The only request that the theater managers made was that they be furnished with new slides at reasonably frequent intervals.--E.L.P.)

TEXAS PERSONNEL IN NEW QUARTERS

The Texas State Office has been moved to the fourth floor of the very modern Federal Building at Wichita Falls, and the personnel feels much like poor relations on a visit. The change from rough, concrete floors to polished hardwood floors has necessitated mastering a new walking technique. The walking, of course, still calls for Kelly's method, which was to walk first on one foot and then on the other, but on the new polished floors it has been necessary to use a mincing step such as is demonstrated by all stage Chinese. (Inspectors w/boots please practice.)

The move was accomplished in three days, April 13-15. Luckily, Auditor Bennett arrived just in time to be useful, although we run the risk of having the strain of lifting desks reflected in his report.

State Director Webb and Senior Stenographer Alexander are the only ones to rate private offices, but even so, others benefited by the move, especially the long-suffering file clerks. Now, when someone wants a letter from Mr. _____ of the Regional Office, or perhaps a copy of a Washington letter, dated sometime along in January or September, between 1935 and 1937, in regard to _____, we can cheerfully dismiss the matter thus: "Don't you remember? That's one of the things that blew away when we were moving."

The Social Security personnel moved in the day after we got settled, and christened their new quarters with an enjoyable open house. If we could find time between making manual revisions, inserting supplements and correcting vouchers, we might have an open house, too.

- Texas.

MEINES' WRITINGS GET AROUND

In March PLAINS FORESTER, M. K. Meines, in charge of the Fremont (Nebr.) nursery, unburdened his chest with an article on the relative merits of drill sowing and broadcast sowing of coniferous seed, with results apparently more far-reaching than he anticipated. The Forest Service Planting Quarterly reproduced the article, and then Mr. Carl Hartley, principal pathologist of the Bureau of Plant Industry, had the article typed and distributed, together with his own comments, to all forest pathologists in the Bureau. Mr. Hartley said:

"The idea that drill sowing is no longer needed to insure the seedlings getting through the soil before preemergence damping-off catches them, is somewhat of a new one to me. I believe, however, that even on soil quite a little heavier than that of the Bessey Nursery, our men have found that caking could be avoided if the overhead watering system was used at the right times and in the right amounts. My own nursery experience is so largely in the horse-and-buggy or rather in the hand-watering days, that I had previously thought of the drill as a rather necessary thing in places where the soil was inclined to cake. Of course from the general damping-off standpoint, we had always supposed on the grounds of theory and a certain amount of quantitative evidence, that the percentage of damped-off seedlings was higher in drill-sown beds than in broadcast beds having the same total number of seedlings per square foot. However, two of the things which Meines mentions had never so far as I know, been considered by the pathologists, or at least had never been thought of as possibly important. The liability to heat injury from the exposure in the cracking drill to sunlight when many of the seed have just sprouted and are presumably not resistant to heat, sounds quite plausible in view of what we have seen of heat injury when seedlings that have barely emerged were suddenly exposed by removal of mulch or shade. I think that this had been somewhat considered previously. A little mechanical injury in the way of seedlings kicked out has often been noticed where densely-sown drills were throwing up cakes of soil, but I had considered it quite unimportant. There is now evidence in unpublished results of Jackson that a very little disturbance just after seed has sprouted may have quite surprising effect on the further development. In carefully moving sprouted seed into his laboratory cultures, he found in a number of experiments that part of them failed to develop into seedlings, even where no damping-off organisms were present. In view of these observations of both Meines and Jackson, the latter dating back a number of years, I think that more attention needs to be given to this factor of mechanical disturbance. If it results in the failure of sprouted seed to make seedlings under aseptic conditions, it might easily result in causing still more loss under more ordinary conditions by making the disturbed seedlings more susceptible for a time to invasion by fungi. The report of Briggs which is mentioned by Meines, of lower emergence percent with higher seed density, is directly in line with our expectations that dense sowing will increase the percentage of damping-off, either of the preemergence or of the post-emergence types."

CUPID STRIKES AGAIN

Dan Cupid has invaded the ranks of the Prairie States Forestry Project again, this time in a raid which was something of a surprise to the Oklahoma personnel. It all came to light when Miss Ina Montgomery and Kenneth Sasser were married May 13 at Guymon, Oklahoma. Mrs. Sasser has been with the Forest Service since December 15, 1937.

We all wish them success and happiness."

- Earl H. Kissick, Okla.

YES! THE SHELTERBELTS REALLY ARE NEWS

That the shelterbelt program really is news, national in scope, was proved in April when the product of an Associated Press writer caught the fancy of news editors from coast to coast to the tune of many thousands of inches of space and big headlines. The story was a good presentation of accomplishments, but what is more important is the fact that the AP was sufficiently interested to obtain the information of its own volition--we had little to do with it besides furnishing pictures. The writer apparently concentrated on formerly skeptical farmers in his interviews. It all arose from the announcement that trees in the A. H. Bungardt shelterbelt near Cordell, Oklahoma, had reached fence post size. The writer, I understand, was sent out from Kansas City.

Various reactions of the editors, as reflected in the headlines, are interesting and a few of them are presented here.

Perhaps the most pointed headlines are found in the Oklahoma City Times and the St. Paul, Minnesota, Dispatch. Both newspapers used only the pictures, the latter enlarging them considerably, and briefing the story in the outlines with decidedly editorial comments favorable to the Project. Over the pictures in the Oklahoma City newspaper was the heading, "That 'Crazy' Shelterbelt Cools Off Critics' Derision." In the St. Paul Dispatch the laconic comment, "Crazy Idea" was vignettted into the planting picture which reposed above the view of a forester cutting one of the trees in the Bungardt plantation.

The largest display was in the Denver Post, which "blew up" the picture so that the whole article occupied fully half a page under an eight-column headline which read "Shelterbelt Trees Are Conquering Land Erosion." The rest of the heading tells a pretty complete story in itself.

The Minneapolis Tribune gave the story front-page space, headed: "After Five Years -- It Works! Federal Shelterbelt Reduces Erosion, Aid Crops from Dakotas to Oklahoma."

From the West Coast comes a clipping from the San Francisco Chronicle headed "Shelterbelt Trees Guard Prairies from Erosion -- 'Crazy' Plan Succeeds in Halting Dust Bowl Destruction," while on the Atlantic Coast the Washington Star heads the story "U. S. Tree Planting Hailed by Farmers Once Skeptical."

The Des Moines Register-Leader asks, in a big way: "How About Those Trees? -- What Once Skeptical Farmers Say Now," and the Ponca City, Oklahoma, News Says: "Shelterbelt Across Country Proves Live Saver for Crops -- Once Skeptical Farmers Now Heap Praise Upon Large Soil Conservation Project."

I could go on and on, but you get the idea!

- H. J. Swan, R.O.

THIS EXPLAINS IT

"The process of thinking draws the blood from the feet to the head," an educator informs us. This explains perhaps, why in so many cases if you think twice about a proposition you get cold feet.

- Ozark News
(R-9 "Daily Contact")

RIPLEY OVERLOOKED ONE IN OKLAHOMA

This belongs to the limbo of Ripley's yarns! The Forest Service official at Roger Mills County, Oklahoma, found a message in his office, directing him to call Mrs. W. E. Hunt, telephone 1117 (pronounced eleven seventeen). He learned that Mrs. Hunt wanted a shelterbelt, and arranged to make an examination of the site the following morning, but in the telephone conversation he neglected to learn the location of the Hunt farm. Inquiry the next morning, however, revealed that it was 16 miles west and 2 miles north of the town, and on arrival identification of the place was easy since the name "Mrs. E. W. Hunt" was on the mail box.

And then -- oh, embarrassment! Mrs. Hunt had not telephoned to the forester, certainly not! Only after considerable jockeying, while he waited for skies to clear, did the forester learn:

Mrs. E. W. Hunt (telephone seventeen eleven), on whom the forester called, has a sister-in-law, Mrs. W. E. Hunt (telephone eleven seventeen), who lives just four miles west of the town.

- Fred R. Yaruss, Okla.

COUNTY AGENTS URGE SHELTERBELT CULTIVATION

The Project has broken out in a perfect rash of County Agent cooperation since the country's one sure crop - weeds - has begun its annual battle for domination of the rural scene. Copies of a number of circular letters to our cooperators, bulletins, and whatnot, sent out by County Agents in several States urging cultivation of shelterbelts, have drifted in to the Regional Office.

My guess is that these letters will get more cultivation done than most any sort of prodding that we might do. To John Farmer we may be just another Federal agency with an axe to grind, but through long years of experience he has come to learn that whatever the County Agent prescribes is generally pretty good medicine. If I were trying to put over a proposition with farmers, I would rather have one tongue-tied County Agent on my side than a whole bevy of silver-tongued orators.

- E. L. Perry, R.O.

FROM THE EDITOR'S NOTEBOOK

Competition sometimes appears in curious form, as attested by a postcard from a South Dakota cooperator, forwarded to the Regional Office by State Director Ford. It reads: "This is to inform you that I have dug the rows for the trees -- and the rows are straight. Most people born and raised on the S. Dak. prairies make straight corn rows. You can compare my rows with those of my neighbor."

We wonder if . . .

* * *

State Director Ford was in the hospital early in May suffering with a "strep throat," and truly our sympathy goes out to the nurses. Ford confided that he had to buy candy for a couple of them in order to square himself. Not decently sick and unable to read, Al sat up in bed and devoted most of his waking hours to bouncing a ball against a wall to see how many

times he could catch it. When he missed, he rang for a nurse to pick it up. Nobody objected (much) until after 10 o'clock in the evening. When he wasn't bouncing the ball, Al whittled, and he admits that he made plenty of shavings. He enjoys his sickness now as he chuckles over how he tormented his caretakers.

* * *

This Project has furnished much information about trees suitable for windbreak purposes, but now it appears that our developments are being watched far beyond the borders of our nation. First, at the request of Iowa's extension forester, we furnished information on the evergreens the Project uses to Dr. Oswald Kofler, Czprtkow, Poland. Now Dr. Kofler has requested information which indicates that the Project's findings will be considered useful in similar work in Poland, and he also asks to be currently informed about our developments.

And then, along comes a page from The Sphere, London illustrated weekly, which carries half a dozen pictures showing "how the shelterbelt program is saving the dust bowl of America."

* * *

Jamestown, North Dakota, is preparing for some sort of a celebration, and whiskers are important. Anyway, State Director Cobb is the only male in the Jamestown Office not competing for the whiskers prize. Al Williams alone lets his whiskers grow au naturel and he says that he has to shampoo them now. The other lads are experimenting, shaving here and there until several weird designs adorn the older members' faces while the youngsters' efforts might at least be called brave. That is, all except Auburn Coe, who disdainfully asserts that in two weeks he can put all others out of the running. Nevertheless, he's experimenting with a mustache.

* * *

Oh, yes. Coe recently faced one of those situations which taxes the ingenuity of fathers. He had given some school kids a whale of a good talk on the wildlife balance. He explained how the animals fit into the scheme of life, some being necessary for food for others and that sort of thing, and was mentally patting himself on the back for having got through without the usual embarrassing questions small but bright young men can ask, when a boy in the back of the room called out: "Say, mister, why do we have gophers?" Auburn hadn't touched on that!

* * *

One of the healthy developments in North Dakota is seen in the cultivation of older plantations by farmers. Many of the woodlots and farmstead plantings are ten years old and more and heretofore had not been cultivated, but with the success of the shelterbelt plantings the farmers are taking a leaf from our book.

* * *

fine example of what shelterbelts can do for the farm was given at the Oakes, N. Dak. nursery May 8 when a 21-jewel duster was raging. Nurseryman Norman Devick had his snow fence in place, and the nursery "stayed put" although all around it dirt was going places.

* * *

Harold (Slim) Engstrom was in North Dakota on a week-end recently, only a couple of long breaths from his natal home at Detroit Lakes, Minn., so with the week's work done he hopped a rattler for a short visit. To get back to work on time Monday morning necessitated his arising at 3 a.m., and he reached the railroad station just as the train was leaving. Paddock-like, he made a lunging finish -- but it wasn't enough. The train gone, Slim turned to hitch-hiking and almost beat the train to his destination. That's an idea, maybe.

* * *

One of the pleasures of driving between Huron and Mitchell, S. Dak., is viewing a number of dandy shelterbelts right at the roadside. All are thrifty and getting big enough to be impressive. North Dakota has just planted five miles along Highway No. 10 and in a few years they should make a good display. Highway No. 10 is one of the most heavily traveled tourist routes and the shelterbelts along it should be choice advertising.

* * *

When questions about something become numerous, it is a sign that many people are thinking about it and that some are likely to "take steps"--and one of America's outstanding conservationists, Paul B. Sears, author of "Deserts on the March" is answering many questions for us in the East. It makes us feel good to read the following from a letter by Mr. Sears to State Director Nelson of Oklahoma:

"You may not realize how many questions are asked about this project by audiences here in the East, and it is always a satisfaction to be able to say that the Forest Service took a most unpromising baby which was laid on its doorstep and did a good job of it."

HORTICULTURE AND SHELTERBELT HAND*IN*HAND

With the Horticulture Department of Oklahoma Agricultural and Mechanical College teaching shelterbelt subjects in classroom work, studying soils in relation to shelterbelts and having a shelterbelt planted at the experiment station, it appears that institutional cooperation in the Sooner State is nearing the zenith.

The Oklahoma Unit of the PSFP has concentrated from the beginning on securing the cooperation of the Extension Division, and each year more and more members of that organization have become interested in our shelterbelt work. Little effort had been made to get the experiment station and the School of Agriculture into the harness, since the Extension Division is the branch which really reaches out into the sand ridges where we plant.

Planting of the shelterbelt resulted from a suggestion I made while on a visit to Frank Cross, head of the Horticulture Department, who favored the idea if Dr. Harper, head of the School of Agriculture, would agree. Dr. Harper, it developed, wanted two shelterbelts, but since the station was already cut up into experimental plots we could not work out a belt of any considerable length.

We finally selected the location for a shelterbelt which will be about 30 rods long, but standard in every other respect. The college furnished the labor and we furnished the trees. The Agronomy and Horticulture Departments are cooperating, with the forester supervising work on the shelterbelt according to our recommendations.

The belt is located just west of the main entrance to the experiment station, where it is sure to be seen by all visitors. Now, we have another department of the college on our bandwagon, in addition to the Extension Division. The Horticulture Department is teaching about shelterbelts in classroom work and Dr. Harper spent three days early in May studying soils in relation to shelterbelts in the Mangum and Elk City Districts.

- James W. Kyle, Okla.

HOPPER BAIT ISN'T TO BLAME FOR KILLING BIRDS AND ANIMALS (By Dr. E. G. Kelly)

What has become known over the world as the "Kansas bait" was developed in 1913, by the entomology department of the Kansas Experiment Station. This bait was made of wheat bran, Paris green, molasses, oranges or lemons and water. When these ingredients were well mixed and applied thinly on the ground, satisfactory results in killing grasshoppers were obtained.

That year farmers in Western Kansas applied more than 875 tons of the mixed bait. Immediately after this was applied, numerous reports came to Professor L. L. Dyche, University of Kansas, and the state game warden, Pratt, that the poison was killing all the game and song birds. After a thorough investigation, Professor Dyche informed Professor G. A. Dean, Kansas State College, that the reports were false and that he could not find song or game birds that had been killed by feeding on the grasshopper bait.

In Oklahoma tests, scattering bait at 100 pounds to the acre in pens of chickens without feed did not result in poisoned fowls. Grasshoppers killed by poison bait proved unattractive to poultry, quail and song birds, but even under more severe conditions than farm control of grasshoppers, none were made sick.

Similar studies of the effect of grasshopper poison on wildlife in Iowa led Watson E. Reed to state that, "Not on one single farm where poison bait had been used according to directions was a domestic or wild animal found dead."

Dr. Logan J. Bennet, of the U. S. Biological Survey, made a careful study of the effect of grasshopper poison on wildlife on more than 600 farms in Iowa. On 400 of these farms, the baiting was moderate to heavy. Numerous reports came to him from these farms that song birds, game birds and small mammals were being poisoned. All the reports were investigated. On one farm, two English sparrows may have been poisoned from a large quantity of bait left in the farmyard. On the other farm, a few white-footed mice

were poisoned where a large amount of grasshopper bait had been scattered about plentifully near a haystack.

In the Central Plains states, food and cover for birds and small mammals were largely destroyed by grasshoppers during the summer and fall of 1936. Birds and small mammals in Kansas suffered greatly for food and shelter. Since game mammals, such as the cottontail, fox squirrel, opossum, raccoon and many others, are dependent upon plants for food and grasses for protection, these little animals suffered greatly during the last two winters because the grasshoppers destroyed both their food and shelter. Therefore, grasshopper control is an aid to the preservation and increase of our wildlife instead of a hindrance.

- Kansas Farmer

PERSONNEL NOTES

A new subdistrict officer, John Carow, has reported for duty in South Dakota, and has charge of the Mitchell subdistrict. Shelterbelt Assistant W. Morris Morgan has transferred from Conway Springs, Kansas, to assume charge of the Watertown subdistrict in South Dakota.

Shelterbelt Assistant Marvin G. Angle reported at Paducah, Texas, on May 9. He will be in charge of the subdistrict there.

Mrs. Sylvia E. Darby has been appointed Junior Stenographer at Oklahoma City, replacing Mrs. Purdy who transferred to the Department of Justice.

E. Herbert Nimrod, Junior Clerk-Stenographer, has reported for duty in the Kingman District Office in Kansas.

- Operation

PAID IN FULL

We, the winners of the R. O. Girls' Bowling Match, do hereby acknowledge receipt in full of the consideration mentioned in our verbal contract with our competitors. There is nothing so exhilarating as the first picnic of the season. We mingled sedate croquet, mild horseshoe pitching (these gals from Missouri pitch a mean horseshoe) and more violent volley ball. The glorified wieners and the lowly bean attired in new dignity satisfied our omnivorous appetites. (Did you think the deviled eggs were a trifle flat?)

- Lucille E. Clark, R.O.

SUPPLY AND DEMAND

High per capita consumption of lumber exists only where there is ample timber, according to R. V. Reynolds and A. H. Pierson of the Washington Office division of forest economics. Lumber consumption varied in 1936 from 91 board feet in Connecticut and Pennsylvania to 1,149 board feet per capita in Oregon. While lumber consumption may not dwindle solely because of a scarcity of timber, the low relative per capita consumption in many eastern states is closely linked with deficient or depleted forests, they point out in their report "Lumber Distribution and Consumption in 1936." Per capita consumption of lumber is five times as high in the Pacific Coast States as in New England and Middle Atlantic combined. There lumber consumption has tended to decline as the forests have been removed. All of the 22 states which are below the national average in lumber consumption lie east of the Great Plains, and of these states 18 appear to be deficient in timber supply.

- Daily Contact (Region-9)